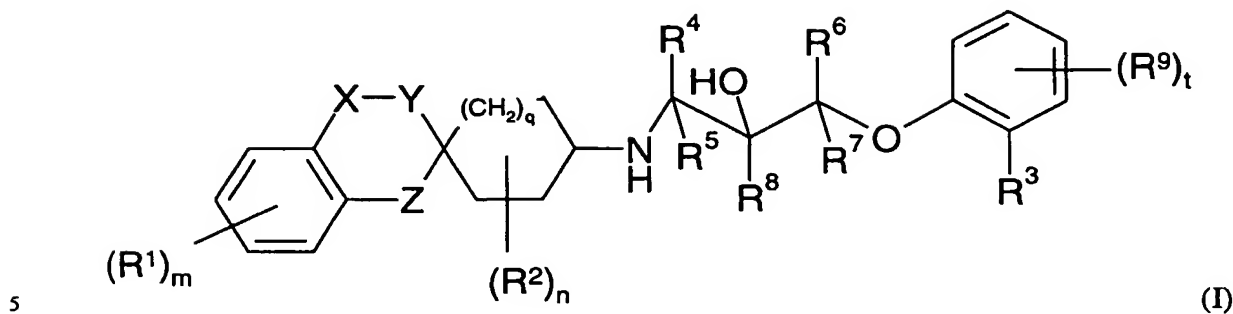


## CLAIMS

1. A compound of formula



wherein

m is 0, 1, 2, 3 or 4;

each  $R^1$  independently represents halogen, cyano, hydroxyl,  $C_1$ - $C_6$  alkyl,

$C_1$ - $C_6$  haloalkyl,  $C_1$ - $C_6$  alkoxy or sulphonamido;

10 either X represents a bond,  $-CH_2-$ ,  $-O-$  or  $-C(O)-$  and Y represents a bond,  $-CH_2-$ ,  $-O-$  or  $-C(O)-$ , or X and Y together represent a group  $-CH=C(CH_3)-$  or  $-C(CH_3)=CH-$ , and Z represents a bond,  $-O-$ ,  $-NH-$  or  $-CH_2-$ , provided that only one of X, Y and Z can represent a bond at any one time and provided that X and Y do not both simultaneously represent  $-O-$  or  $-C(O)-$ ;

15 n is 0, 1 or 2;

each  $R^2$  independently represents halogen or  $C_1$ - $C_6$  alkyl;

q is 0 or 1;

$R^3$  represents  $-NHC(O)R^{10}$ ,  $-C(O)NR^{11}R^{12}$  or  $-COOR^{12a}$ ;

$R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$  each independently represent a hydrogen atom or a  $C_1$ - $C_6$  alkyl

20 group;

t is 0, 1 or 2;

each  $R^9$  independently represents halogen, cyano, hydroxyl, carboxyl,

$C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  alkoxy carbonyl,  $C_1$ - $C_6$  haloalkyl, or  $C_1$ - $C_6$  alkyl optionally

substituted by at least one substituent selected from carboxyl and  $C_1$ - $C_6$  alkoxy carbonyl;

$R^{10}$  represents a group  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkenyl,  $C_3$ - $C_6$  cycloalkyl, adamantyl,  $C_5$ - $C_6$  cycloalkenyl, phenyl or a saturated or unsaturated 5- to 10-membered heterocyclic ring system comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur, each of which may be optionally substituted by one or more substituents

independently selected from nitro, hydroxyl, oxo, halogen, carboxyl,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  alkylthio,  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  alkoxycarbonyl, phenyl and  $-NHC(O)-R^{13}$ , or

$R^{10}$  represents a group  $-NR^{14}R^{15}$  or  $-O-R^{16}$ ;

$R^{11}$  and  $R^{12}$  each independently represent (i) a hydrogen atom, (ii) a 3- to 6-

membered saturated or unsaturated ring optionally comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur and optionally further comprising a bridging group, the ring being optionally substituted with at least one substituent selected from halogen, hydroxyl,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  hydroxyalkyl and  $C_1$ - $C_6$  haloalkyl,

(iii) a  $C_1$ - $C_6$  alkyl group optionally substituted by at least one substituent selected from

halogen, amino, hydroxyl,  $C_1$ - $C_6$  haloalkyl, carboxyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  alkoxycarbonyl,  $C_1$ - $C_6$  alkylcarbonylamino and a 3- to 6-membered saturated or unsaturated ring optionally comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur and optionally further comprising a bridging group, the ring being optionally substituted with at least one substituent selected from halogen, hydroxyl, oxo,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  hydroxyalkyl and  $C_1$ - $C_6$  haloalkyl, or (iv)  $C_1$ - $C_6$  alkylsulphonyl, or

$R^{11}$  and  $R^{12}$  together with the nitrogen atom to which they are attached form a 4- to 7-membered saturated heterocyclic ring that optionally further comprises a ring nitrogen, oxygen or sulphur atom and that is optionally fused to a benzene ring to form a 8- to 11-

membered ring system, the heterocyclic ring or ring system being optionally substituted with at least one substituent selected from halogen, hydroxyl, amido,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  hydroxyalkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  alkoxycarbonyl,  $C_1$ - $C_6$  haloalkyl,  $C_1$ - $C_6$  alkylamino, di- $C_1$ - $C_6$  alkylamino,  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  alkylcarbonylamino,  $C_1$ - $C_6$  alkylaminocarbonyl, di- $C_1$ - $C_6$  alkylaminocarbonyl, phenyl, halophenyl,

phenylcarbonyl, phenylcarbonyloxy and hydroxydiphenylmethyl;

$R^{12a}$  represents a hydrogen atom or a  $C_1$ - $C_6$  alkyl group;

$R^{13}$  represents a  $C_1$ - $C_6$  alkyl, amino or phenyl group;

$R^{14}$  and  $R^{15}$  each independently represent a hydrogen atom, or a group  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkylsulphonyl, phenyl or a saturated or unsaturated 5- to 10-membered

- 5 heterocyclic ring system comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur, each group being optionally substituted as defined above for  $R^{10}$ , or  $R^{14}$  and  $R^{15}$  together with the nitrogen atom to which they are attached form a 4- to 7-membered saturated heterocyclic ring that optionally further comprises a ring nitrogen, oxygen or sulphur atom, the heterocyclic ring being optionally substituted by at least one
- 10 hydroxyl; and

$R^{16}$  represents a hydrogen atom, or a group  $C_1$ - $C_6$  alkyl, phenyl or a saturated or unsaturated 5- to 10-membered heterocyclic ring system comprising at least one ring heteroatom selected from nitrogen, oxygen and sulphur, each group being optionally substituted as defined above for  $R^{10}$ ;

- 15 or a pharmaceutically acceptable salt or solvate thereof.

2. A compound according to claim 1, wherein X and Y have the meanings shown in the following table:

X	Y
bond	O
O	bond
$CH_2$	bond
bond	$CH_2$

- 20 3. A compound according to claim 1 or claim 2, wherein Z represents -O- or  $-CH_2-$ .

4. A compound according to any one of claims 1 to 3, wherein q is 1.

5. A compound according to any one of claims 1 to 4, wherein  $R^3$  represents  $-NHC(O)R^{10}$  or  $-C(O)NR^{11}R^{12}$ .

6. A compound according to any one of claims 1 to 5, wherein t is 1 and  $R^9$  is located in the *para* position with respect to  $R^3$ .

7. A compound according to claim 1 selected from:

2-((2*S*)-3-[(5-Chloro-3*H*-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl)oxy)-4-hydroxy-*N*-methylbenzamide,

*N*-2-((2*S*)-3-[5-Chloro-3*H*-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl)oxy)-4-fluorophenyl]acetamide,

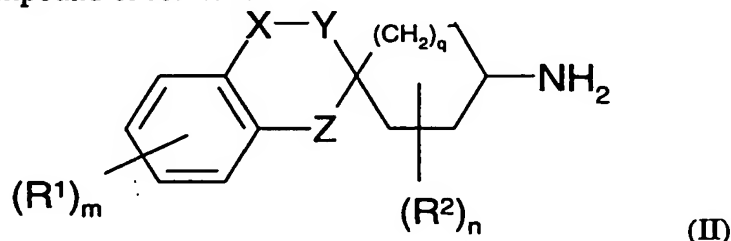
2-((2*S*)-3-[(5-Chloro-3*H*-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl)oxy)-*N*-methylbenzamide,

*N*-[2-((2*S*)-3-[(5-Chloro-3*H*-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxypropyl)oxy)-4-hydroxyphenyl]acetamide,

*N*-[2-((2*S*)-3-[(5-Chloro-3*H*-spiro[1-benzofuran-2,1'-cyclohexan]-4'-yl)amino]-2-hydroxy-2-methylpropyl)oxy)-4-hydroxyphenyl]acetamide (trifluoro acetate), and pharmaceutically acceptable salts and solvates of any one thereof.

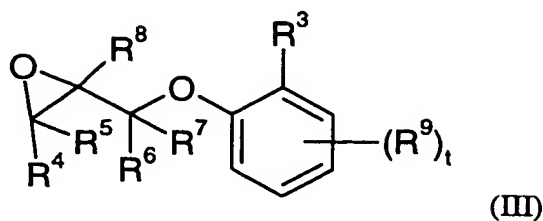
8. A process for the preparation of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as defined in claim 1 which comprises,

(a) reacting a compound of formula



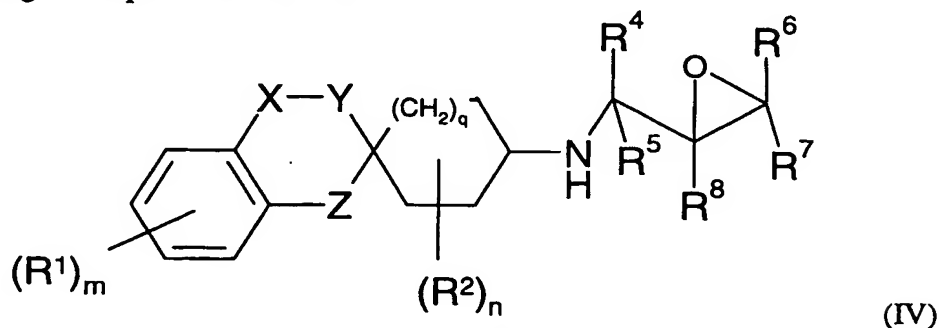
wherein m,  $R^1$ , n,  $R^2$ , q, X, Y and Z are as defined in formula (I), with a compound of formula

46

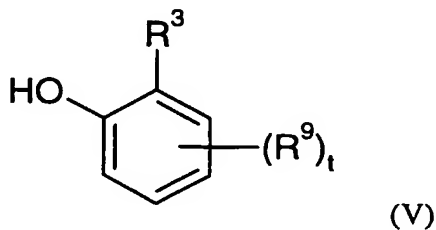


wherein  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ ,  $t$  and  $R^9$  are as defined in formula (I); or

(b) reacting a compound of formula



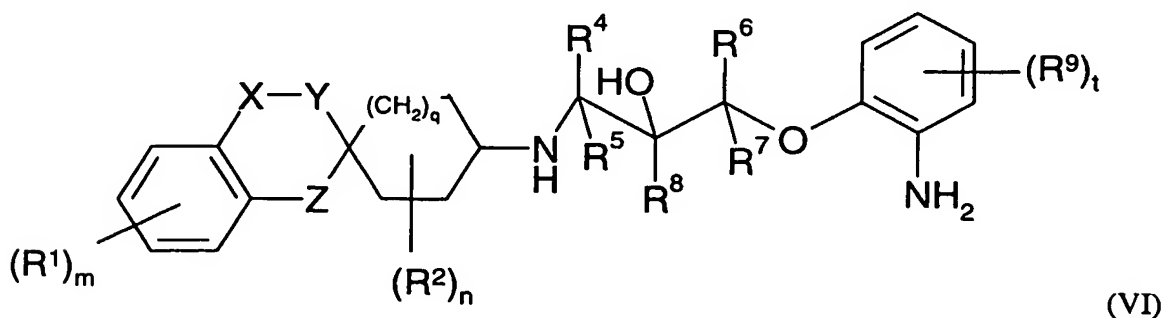
5 wherein  $m$ ,  $R^1$ ,  $n$ ,  $R^2$ ,  $q$ ,  $X$ ,  $Y$ ,  $Z$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$  are as defined in formula (I), with a compound of formula



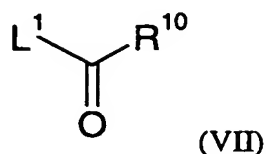
wherein  $R^3$ ,  $t$  and  $R^9$  are as defined in formula (I), in the presence of a suitable base; or

(c) when  $R^3$  represents  $-NHC(O)R^{10}$ , reacting a compound of formula

10

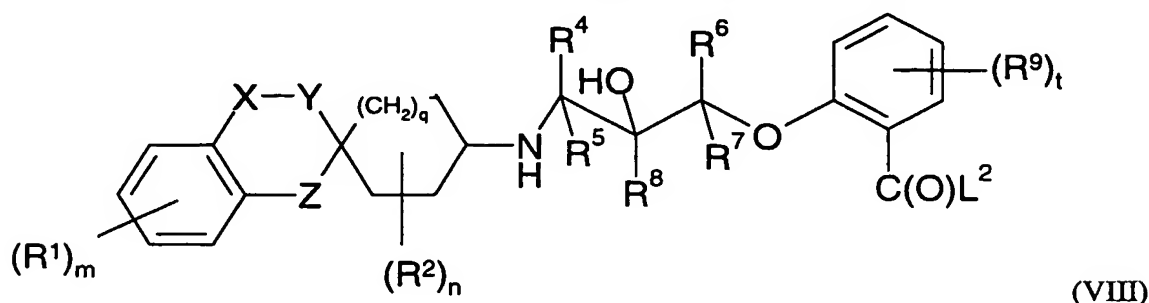


wherein  $m$ ,  $R^1$ ,  $n$ ,  $R^2$ ,  $q$ ,  $X$ ,  $Y$ ,  $Z$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ ,  $t$  and  $R^9$  are as defined in formula (I), with a compound of formula



wherein  $\text{L}^1$  represents a leaving group and  $\text{R}^{10}$  is as defined in formula (I); or

(d) when  $\text{R}^3$  represents  $-\text{C}(\text{O})\text{NR}^{11}\text{R}^{12}$ , reacting a compound of formula



5 wherein  $\text{L}^2$  represents a leaving group and  $m$ ,  $\text{R}^1$ ,  $n$ ,  $\text{R}^2$ ,  $q$ ,  $X$ ,  $Y$ ,  $Z$ ,  $\text{R}^4$ ,  $\text{R}^5$ ,  $\text{R}^6$ ,  $\text{R}^7$ ,  $\text{R}^8$ ,  $t$  and  $\text{R}^9$  are as defined in formula (I), with a compound of formula (IX),  $\text{NHR}^{11}\text{R}^{12}$ , wherein  $\text{R}^{11}$  and  $\text{R}^{12}$  are as defined in formula (I); or

(e) when  $\text{R}^3$  represents  $-\text{NHC}(\text{O})\text{R}^{10}$ ,  $\text{R}^{10}$  represents  $-\text{NR}^{14}\text{R}^{15}$  and  $\text{R}^{14}$  and  $\text{R}^{15}$  both represent hydrogen, reacting a compound of formula (VI) as defined in (c) above with  
10 potassium cyanate;

and optionally after (a), (b), (c), (d) or (e) forming a pharmaceutically acceptable salt or solvate.

15 9. A pharmaceutical composition comprising a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 in association with a pharmaceutically acceptable adjuvant, diluent or carrier.

10 10. A process for the preparation of a pharmaceutical composition as claimed in claim 9 which comprises mixing a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 with a pharmaceutically acceptable adjuvant, diluent or carrier.

11. A compound of formula (I) or a pharmaceutically-acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 for use in therapy.

12. Use of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 in the manufacture of a medicament for the treatment of human diseases or conditions in which modulation of chemokine receptor activity is beneficial.

13. Use of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 in the manufacture of a medicament for use in treating rheumatoid arthritis.

14. Use of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 in the manufacture of a medicament for use in treating chronic obstructive pulmonary disease.

15. Use of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 in the manufacture of a medicament for use in treating asthma.

16. Use of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7 in the manufacture of a medicament for use in treating multiple sclerosis.

17. A method of treating an inflammatory disease which comprises administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7.

18. A method of treating an airways disease which comprises administering to a patient in need thereof a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 7.